

CLAIMS

1 (Currently amended) A system for calibrating a plurality of weighing installations of the kind having a working configuration of a plurality of working load cells each with a fixed side and a load-bearing side, supports for the fixed sides of the load cells, and a load operatively mounted on and distributed between the load-bearing sides of the load cells, comprising portable apparatus moveable between installations to be calibrated, and fixed apparatus at each installation to be calibrated, wherein, the fixed apparatus at each installation includes a plurality of anchorage means fast with each working load cell support, the portable apparatus includes as many reference load cells and fluid rams as are necessary to apply calibrating loads simultaneously to each of the plurality of working load cells in the working configuration of any of said installations, a source of fluid under pressure, and means for supplying fluid under pressure from the source simultaneously to the fluid rams associated with each one of the plurality of reference load cells, and the reference cells and the rams are removably connectable between the anchorage means and the load-bearing sides of the working load cells to apply calibrating loads to the working load cells in the working configurations of the installations, wherein the system is operable to calibrate each load cell selectively as well as simultaneously and, the portable apparatus includes switch means for diverting fluid to the ram or rams associated with each of the plurality of reference load cells in turn, and for selecting the outputs of the corresponding load cells for recording.

2 (Original) A system according to claim 1 wherein the support for the fixed side of the load cell comprises a load plate, and the anchorage means are incorporated into each load plate.

3 (Original) A system according to claim 1 wherein the support for the fixed side of the load cell comprises a load plate fastened to a solid base, and the anchorage means are provided on the solid base.

4.(Previously amended) A system according to claim 1 wherein the anchorage means comprise two pairs of parallel upstanding webs on either side of the load cell, the webs having slots to provide an anchorage.

5 (Previously amended) A system according to claim 1 wherein the anchorage means comprise flat areas of ferromagnetic material engageable by electromagnets carried by the portable apparatus.

6 (Previously amended) A system according to claim 1 wherein the portable apparatus includes a cradle removably connectable to the anchorage means, holding the fluid ram in position to apply a calibrating load to the working load cell.

7 (Original) A system according to claim 6 wherein the cradle includes tie bars for engagement with the anchorage means joined by a cross beam to which the ram is attached.

8 (Previously amended) A system according to claim 6 wherein the cradle includes position adjustment means to permit the reference cell to be properly positioned in relation to the working cell.

9 (Previously amended) A system according to claim 1 wherein the calibrating load is transmitted to the working load cell through a part of a weigh vessel.

10 (Original) A system according to claim 9 in which the calibrating load is transmitted to the working load cell through a vessel support bracket.

11 (Previously amended) A system according to claim 1 including a self levelling washer located between the portable apparatus and the load-bearing side of the working load cell.

12 (Previously amended) A system according to claim wherein the reference load cell is a pancake load cell in which a central core is supported by shear webs from an outer rim.

13 (Cancelled)

14 (Currently amended) A system according to claim ~~13~~ 1 wherein the portable apparatus includes means for recording each calibrating load applied to the working load cells as measured by the reference load cells, and means for recording the corresponding output of the working load cells to provide a calibration record.

15 (Currently amended) A system according to claim ~~13~~ 1 wherein the portable apparatus includes control means for varying the pressure of the fluid supplied to the rams whereby to control the force exerted by a given ram on the corresponding reference and working load cells in a sequence of calibration steps for each working load cell.

16 (Cancelled)

17 (Currently amended) A method of calibrating a plurality of weighing installations of the kind having a working configuration of a plurality of working load cells each with a fixed side and a load-bearing side, supports for the fixed sides of the load cells, and a load operatively mounted on and distributed between the load-bearing sides of the load cells, comprising providing portable apparatus moveable between installations to be calibrated, and providing fixed apparatus at each installation to be calibrated, wherein the fixed apparatus at each installation includes a plurality of anchorage means fast with each working load cell support; and the portable apparatus includes as many reference load cells and fluid rams as necessary to apply calibrating loads simultaneously to each of the plurality of working load cells in the working configuration of any of said installations, and at each installation in turn, connecting the reference cells and the

rams between the anchorage means and the load-bearing sides of the working load cells, and supplying fluid under pressure from a source on the portable apparatus to the fluid rams associated with each of the plurality of reference load cells whereby simultaneously to apply calibrating loads to each working load cell in the working configuration of the installation;

supplying fluid from the source to the rams associated with the reference load cells selectively as well as simultaneously when applying the calibrating loads to each working load cell at an installation and recording each calibrating load applied to the working load cells as measured by the reference load cells, recording the corresponding output of the working load cells to provide a calibration record and diverting fluid to the ram or rams associated with each of the plurality of reference load cells in turn, and selecting the outputs of the corresponding load cells for recording.

18 (cancelled)

19 (cancelled)

20 (currently amended) A method according to claim ~~49~~ 17 comprising varying the pressure of the fluid supplied to the rams whereby to control the force exerted by a given ram on the corresponding reference and working load cells in a sequence of calibration steps for each working load cell.

21 (cancelled)

22 (Currently amended) A method according to claim ~~22~~ 17 comprising the step of providing switch means for diverting fluid to the ram or rams.